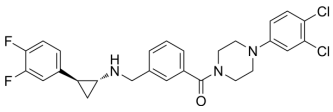
LSD1-IN-26

Cat. No.:	HY-149978
Molecular Formula:	$C_{27}H_{25}Cl_2F_2N_3O$
Molecular Weight:	516.41
Target:	Histone Demethylase; Monoamine Oxidase; Apoptosis; Bcl-2 Family; IAP; Caspase
Pathway:	Epigenetics; Neuronal Signaling; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	LSD1-IN-26 (compound 12u) is a potent LSD1 inhibitor, with an IC_{50} of 25.3 nM. LSD1-IN-26 also inhibits MAO-A (IC_{50}=1234.57 nM) and MAO-B (IC_{50}=3819.27 nM). LSD1-IN-26 significantly induces apoptosis in MGC-803 cells. LSD1-IN-26 can be used for gastric cancer research[1].

IC_{50} & Target				
	LSD1 25.3 ± 1.4 nM (IC_{50})	MAO-A 1234.57 nM (IC_{50})	MAO-B 3819.27 nM (IC_{50})	Bcl-2
	cIAP-1	Caspase-3	Caspase-9	

In Vitro

LSD1-IN-26 (compound 12u) shows the high potency against MGC-803, KYSE450 and HCT-116 cells with IC_{50} values of 14.3±1.18, 22.8±1.45 and 16.3±2.22 μM, respectively, which is more potent than that of GSK-LSD1 (HY-100546) (IC_{50} > 64 μM) and GSK-2879552 (HY-18632) (IC_{50} > 64 μM)[1].

LSD1-IN-26 (0-24 μM, 48 h) induces the accumulation of H3K4 Me1/2 and H3K9 Me2/3 and the decrease of Bcl-2 and c-IAP1[1].

LSD1-IN-26 (0-24 μM, 48 h) induces apoptosis and differentiation, and inhibits migration and cell stemness[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	MGC-803 cells
Concentration:	0, 8, 16, 24 μM
Incubation Time:	48 h
Result:	Effectively up-regulated the substrate proteins of LSD1, thereby significantly increasing the expression levels of mono-/bi-methylation of H3K4 and H3K9. Dose-dependently induced the decrease of expression levels of anti-apoptotic proteins Bcl-2 and c-IAP1, and the cleavage of apoptotic executive proteins Caspase3 and Caspase9.

REFERENCES

[1]. Ma QS, et al. Discovery of novel tranylcypromine-based derivatives as LSD1 inhibitors for gastric cancer treatment. Eur J Med Chem. 2023 May 5;251:115228.

Caution: Product has not been fully validated for medical applications. For research use only.

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